

## Anti-Caspase-3/CASP3 Antibody Picoband® FITC Conjugated

Catalog Number: PB9188-FITC

### About CASP3

Caspase 3 is a caspase protein which interacts with Survivin, XIAP, CFLAR, Caspase 8, HCLS1, Deleted in Colorectal Cancer, TRAF3 and GroEL. This gene which is located on 4q35 encodes a protein that is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes that undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. And the caspase-3 activation in heart failure sequentially cleaves SRF and generates a truncated SRF that appears to function as a dominant-negative transcription factor. Additionally, the caspase-3 influence on bone mineral density should be considered in any in vivo application of caspase-3 inhibitors to the treatment of human disease. In erythroid precursors undergoing terminal differentiation, Hsp70 prevents active CASP3 from cleaving GATA1 and inducing apoptosis.

### Overview

|                      |  |
|----------------------|--|
| Product Name         | Anti-Caspase-3/CASP3 Antibody Picoband® FITC Conjugated  |
| Reactive Species     | Human, Mouse, Rat  |
| Application          | Recommended applications are based on the parent unconjugated antibody (IF, IHC, ICC, WB). Customers may select suitable applications according to their experimental needs. |
| Clonality            | Polyclonal   |
| Formulation          | Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.02% Na <sub>3</sub> N.   |
| Storage Instructions | At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.   |
| Host                 | Rabbit   |
| Uniprot ID           | P42574   |

### Technical Details

|                  |  |
|------------------|--|
| Immunogen        | E.coli-derived human Caspase 3 recombinant protein (Position: T67-D175). Human Caspase 3 shares 86% and 90% amino acid (aa) sequences identity with mouse and rat Caspase 3, respectively. |
| Cross Reactivity | No cross-reactivity with other proteins  |
| Isotype          | Rabbit IgG   |
| Form             | Liquid   |
| Concentration    | 0.5 mg/mL  |
| Purification     | Immunogen affinity purified.   |

|                     |  |
|---------------------|--|
| Conjugate           | FITC<br>Excitation Wavelength: 495 nm<br>Emission Wavelength: 525 nm |
| Suggested Dilutions | Optimal dilutions should be determined by end users.                 |

## 148 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2017.6160, Inhibitory effects of vitamin E on osteocyte apoptosis and DNA oxidative damage in bone marrow hemopoietic cells at early stage of steroid-induced femoral head necrosis
2. PubMed ID: PMID:26064215, Effects of PDTC on NF-kappaB expression and apoptosis in rats with severe acute pancreatitis-associated lung injury
3. PubMed ID: 10.2147/DDDT.S265198, Integrated Network Pharmacology Analysis and Experimental Validation to Reveal the Mechanism of Anti-Insulin Resistance Effects of Moringa oleifera Seeds

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